### WHENER COLUMN

### VAAGDEVI COLLEGE OF ENGINEERING

### **UGC AUTONOMOUS**

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### FDP on Renewable Energy Technologies and Distributed Generation

Electrical & Electronics Engineering Department has organized "FDP on Renewable Energy Technologies and Distributed Generation" dated 21-04-2016 to 30-04-2016 by Dr. K Prakash and Mr. P. Sadanandam for faculty, the third and final year B.Tech Students. Dr. M Sydulu, Professor, NIT Warangal has given inaugural lecture series. Number of Participants: 21

The programme is started with welcome note by the Principal Dr. K. Prakash followed by the lecture session.

During this workshop the following points were discussed:

- Various renewable energy technologies.
- Various distribution generation sources.
- Placement and sizing of DGs.
- Eliminating the uncertainties involved in DG output.
- Understanding uncertainties on renewable energy

### The objectives of the programme are:

- To enable the participants to learn and conceptualize renewable energy technologies and distribution generation systems.
- To enhance the learning capabilities of the participants in grid integration issues of above energy sources.
- To empower the participants with usage of MATLAB tools for grid integration and optimization.

### **Outcomes of the programme:**

- Gained knowledge on various renewable energy technologies and distribution generation systems
- To encourage the participants to offer a course in renewable energy technologies and distribution generation systems.
- To enable the participants to learn new methods for integration and optimization of these technologies.

- REGISTRATION FORM 1. Name:
- (Degree, Specialization)

Qualification: Designation:

- Experience: Institution: 4 'n
- Address for communication: 9
- ... Mobile. Email Id(compulsory):.. Phone:
- Payment Details: DD. No. :. 7
- Amount: Rs.500.00 8. Accommodation Required: Bank :...

Signature of the Applicant

### SPONSORSHIP CERTIFICATE

Ms/Mr/Dr.Prof.

is a bonafide teacher of our college. He / She is sponsored to attend Faculty Development Program on "Renewable Energy Technologies and Distributed Generation" during 211", 27th April, 2016.

Signature of the Principal with scal

Dr. D.V.S.S. Siva Sarma, NIT, Warangal. Dr. V. T. Somasekhar, NIT, Warangal. Dr. M. Sydulu, NIT, Warangal.

TECHNICAL ABVISORY COMMITTEE:

Dr. N. Vishwanathan, NIT. Warangal. Dr. S. Srinivasa Rao, NIT, Warangal

Dr. S. Srinivas, IIT, Madras

Dr. J. Amarnath, JNTU CEH, Hyderabad.

Dr. B. Venugopal Reddy, NIT, Goa. Dr. K. Siva Kumar, IIT, Hyderabad.

Dr. MithunBhaskar, Mathworks, Bangalore.

Dr. P. Srinivas, Osmania University, Hyd. Dr. M. Sushma, JNTU CEH, Hyderabad.

### ORGANIZING COMMITTEE MEMBERS

Mr. P.PurnaChander Rao, Assoc. Professor Mr. N.Mahender, Assoc Professor

Mr. T.Venu Gopal, Asst. Professor Mr. B.Nagaraju, Asst. Professor Mr. T. Rajesth, Asst. Professor Mr. V. Saryanarayana, Asst. Professor Ms. S.Swathi, Asst. Professor Mr. A.Sareesh Kumar, Asst. Professor Mr. D.Ramesh, Asst. Professor

Yes/No

Ms. M.Swapna, Asst. Professor

Ms. P.Thanuja, Asst. Professor Md. Yasin, Ass. Professor

Mr. B.Balu, Asst. Professor Ms. K.Shravani, Asst. Professor

### Address For Communication

Assoc. Prof., Department of EEE Mobile: 9948233769 Mr. P. Sadanandam

Email: vocw.ceed@gmail.com / nandu.vaagdevi@gmail.com VAAGDEVI COLLEGE OF ENGINEERING Bolikunta, Wannga - 506 005

### RENEWABLE ENERGY TECHNOLOGIES AND DISTRIBUTED GENERATION

(21st April-30th April, 2016)

Dr. K. Prakash Professor, EEE Dept. Coordinator

Mr. P. Sadanandam Asso. Professor. EEE Dept. Co - Coordinator:



Organized by

Department of Electrical and Electronics Engineering

### VAAGDEVI COLLEGE OF ENGINEEKING

(Affiliated to JNTUH, Hyd & Accredited by NBA)
P.O. Belliutunis
P.O. Belliutunis
Phone No. 0870 - 2865183, Fax No. (0870) 2865185
websile: www.vagdevieng.com

### ABOUT THE INSTITUTE

Vaagdevi College of Engineering Warangal was established in 1998 by Visammhara Educational Society to meet the growing demand for manpower in the fields of emerging areas of Engineering and Technology, furitally from branchs EEE, CSE, ECE & EIE were started. Subsequenty IT, BT, MECH & EIC were started. Subsequenty IT, BT, MECH & 2009 & 2013 respectively, M.Tech. in Power Electronics & Computer Science and Engineering Programmes are sanctioned by the All India Council for Technical Education and they have been commenced.

Vaagdevi College of Engineering, Bollikunta, Wurangal was conceived and developed with a view that it would fulfill is obligation rowards promoting technical education in the backward region of Andhra Pradesh and serve the society at large.

The Institution is located in a sprawling area of a cress armidst picturesque surrounding. The Institution has well-established Laboratories, Library, Christallawallawalla. Knowelege Centre. The Institution has organised three day international Symposium which is the first of its kind among all the Engineering Colleges affiliated to JNIU, Hyderabad.

Many students of different disciplines were selected by Satyam, Wipro, IBM, etc., through campus

### ABOUT THE DEPARTMENT

The B.Tech (EEE) course started in year 1998 with an initial intake of 60 students. In due course the strength has enhanced to 90 and presently the intake is 180. This the first college in this region, to start M.Tech (Power Electronics) course among the affiliated colleges of INTUH in the year 2004 and M.Tech, (Power Systems Control and Automation course) in the year of 2012.

The Department has well equipped laboratories for both B. Tech&M. Tech (PR. & PSCA). courses. Most of the faculty are M. Tech degree holders from repeuted organizations its N. IT. Wg. J. Ostmania University and IN/Tec. The Department encourages are pressured their Pt. Sonito faculty our pushed their Pt. Sonito faculty guide several B. Tech and M. Tech. Students in their project work.

Department conducts MATLAB trainin, programmes for students regularly. Department encourages the fisculty in participating and organizing the faculty orientation programmes regularly. Also motivates the faculty towards research activity, and has a good number of publications in both National and International conferences and Journals.

### ABOUT WARANGAL CITY:

The historical city of Warangal is the 5th biggest in the state of Andrha Thackla and is an important educational cluster. Warangal, earlier known as Orugallu or EksahilaNagaran was capital city of the great Kakariya Kingdon, still retains its importance as a culture centre in Telangana region of Andrha Thacksh. There are many historical places in and around the city such as Fort Warangal. Thousand Pillar Temple Bhachash Temple Ramapapa Temple along with beautiful seenic lakes of Ramapa, Pakal life sanctuaries nearby and other places for the tourists.

### ABOUT THE FDP:

students. This program makes the rapid increase of Distributed Generation (DG) installations , Distributed The spectrum of power electronics applications is very wide. It is necessary to have the knowledge of recent developments in these areas for faculty of Engineering Colleges, R&D people and Engineering Renewable electricity generation technologies etc.,

### RESOURCE PERSONS:

Resource persons are from IIT Madras, IIT Hyderade, NIT Warningal, NIT Got, Osmania University, NYTU Hyderaded, INTU Jagityal. MathworksBanglore, Texas Instruments and Gereral Electricals.

### ELIGIBILITY FOR PARTICIPATION:

The program is for the teachers of AICTE approved Engineering Colleges, Parcifing Engineers and Researchers in the field of Power Electronies & Drives. The selected participants, who attend the course will be paid '14 as per time's (on producing tickets in originals) for outstation participants along with free boarding and lodging at institute Hostel / Hotels.

### COURSE CONTENTS:

- Modelling and Control of Electrical Drives.
   Simulation of Power Converters and Drives.
   Scalar, Vector, DTC, Adaptive and Model Based.
- Multilevel Converters
   Power Quality Problems and Harmonic Reduction Techniques
   Introduction to DSP Processors.
- Architecture of TMS 320LF 2407 and TMS 320LF 2812.
   Implementation of Space Vector Modulation.
   Implementation of Asynchronous Sine-Triangular PWM Techniques.
  - DSP Applications to Wind Energy Systems. Hybrid Electric Vehicles.
    - DC DC & Resonant Converters. Induction Heating. Hands on Lab Sessions.

### HOW TO REGISTER

Registration form is available in the brochure or can be downloaded from the College website. Registration fee of Rs. 500- (for faculty from AICTE completion of program as per rules) may be sent to coordinator in the form of DD along with registration form duly sponsored by Head of the Institution. DD must be drawn in favour of "Petrorpal, Asagdevi approved institutions which is refundable on successful College of Engineering, Bollikunta, Warangal' payable at Warangal, The completed form may be sent to:

Faculty Development Program on Renewable Energy Technologies And Distributed Generation Department of Electrical & Electronics Engineering The Coordinator

Vaagdevi College of Engineering

Bollikunta, Warangal - 506 005. Andhra Pradesh. Telephone No: 0870-2565183, Fax: 2865185.

IMPORTANT DATES
Last date for receiving Application 128-03-2016
Confination of Participation :15-04-2016
Commencement of the Programme : 21-04-2016



## AVAAGDEVI COLLEGE OF EN. JINEERING

Bollikunta, Warangal-506 005 Autonomous

## Department of Electrical and Electronics Engineering

Date: 20-April-2016.

# FACULTY DEVELOPMENT PROGRAMME SCHEDULE RENEWABLE ENERGY TECHNOLOGIES AND DISTRIBUTED GENERATION.

3.10PM to 4.00PM	Renewable Energy(RE) sources Dr. S. Srinivasa Rao, NIT, Warangal	Renewable energy and DG grid integration Dr. K. Siva Kumar, IIT. Hyderabad	Distributed generation and smart cities.  Dr. P. Srinivas, Osmania University, Hyd	Grid access and interconnection requirements Dr. J. Amamath, JNTU CEH, Hyderabad	Resistance from utilities Dr. N. Vishwanathan, NIT, Warangal		
3.00PM to 3.10PM	TEA						
PM to 3.00PM 3.00PM to 3.10PM	Rapid increase of Distributed Generation (DG) installations Dr. D.V.S.S. Siva Sarma, NIT, Warangal	Feature of the renewable energy based or micro sources hased DG systems Dr. J. Amarnath, INTU CEH, Hyderabad	Renewable Integration, Forecasting in smart grids Dr. M. Sushma, INTU CEH, Hyderabad	Voltage and frequency of the microgrid systems. Dr. S. Srinivas, IIT, Madras	Wind and photovoltaic (PV) power generation. Dr. S. Srinivasa Rao, NIT, Warangal		
12.40P 1.30PM M to 1.30P M	Rapi Gene Dr. D. Hyde Dr. J. Hyde Dr. J. Volt						
7277							
11.10AM to 12.40PM	Introduction to RET&DG. Dr. M. Sydulu, NIT, Warangal	Distributed Renewable Electricity generation technologies Dr. S. Srinivas, IIT, Madras	Architecture and design principle, infrastructure, ICT, storage and smart metering technologies Dr. MithunBhaskar, Mathworks, Bangalore	Future smart grid and s mart city models Dr. K. Siva Kumar, IIT, Hyderabad	Grid integration Dr. J. Amamath, INTU CEH, Hyderabad		
11.00A M to 11.10A M	TEA						
S.No. Timings/D 9.30 AM to 11.00AM 11.00A ate M M to 10.01AM 11.10A M To 10.01AM M To 10.01AM M M M M M M M M M M M M M M M M M M	Inaugural session	Distributed versus centralized electricity systems Dr. N. Vishwanathan, NIT, Warangal	Power electronics in grid integration Dr. B. Venugopal Reddy, NIT, Goa	Wind forecasting tools for grid stability Dr. D.V.S.S. Siva Sarma, NIT, Warangal	Subsidized fossil fuels Dr. M. Sushma, JNTU CEH, Hyderabad		
9.30		D 20 V.	Pow Dr.1	Wind Dr. 1	S D		
Timings/D ate	21/04/2016	22/04/2016	23/04/2016	25/04/2016	26/04/2016		
S.No.	-	2	6	4	5		

	Power quality in a microgrid Dr. D.V.S.S. Siva Sarma, NIT, Warangal	Build in-country capabilities Dr. D.V.S.S. Siva Sarma, NIT, Warangal	Importance of ASD and its applications.  Dr.K.Shiva Kumar,IIT, Hyderabad			
$\cap$	DG interfacing converters Dr. D.V.S.S. Siva Sarma, NIT, Warangal	Rethink fossil fuel subsidies Dr. J. Amamath, INTU CEH, Hyderabad	Basic problems caused by shaft voltages and bearing currents.  Dr.M.Sushma, JNTU CEH, HYDERABAD	feedback		
	Architecture and design principle Dr. N. Vishwanathan, NIT, Warangal	Balance financial innovation and regulation Dr. S. Srinivas, IIT, Madras	Applications of over current protection in the adjustable frequency drives.  Dr.B. Venugopal Reddy,NIT,Goa	Renewable energy and DG grid integration Dr. K.Prakash, VCE, Warangal		
<i>y</i>	Energy policy and optimal sizing and siting of DG will be emphasized. Dr. K. Siva Kumar, IIT, Hyderabad	Policy Issues and Options Dr. J. Amarnath, INTU CEH, Hyderabad	Series Variable Frequency Drives. Dr.Mithun Bhaskar, Mathworks, Bangalore	Renewable energy and DG grid integration Dr. K.Prakash, VCE, Warangal		
	27/04/2016	28/04/2016	29/04/2016	30/04/2016		
	9	7	<b>∞</b>	6		

Head of the Department

Head of the Department
ELECTRICAL & ELECTRONICS ENGINEERING
Vaagdevi College of Engineering,
Bollikunta, Warangal (U) T.S. 506005